TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

Job Number: 680-78897-1

Job Description: Pavillion Groundwater

For:
US EPA National Risk Mngmnt Research
919 Kerr Research Drive
Ada, OK 74820

Attention: Rick Wilkin

Approved for release.
Lisa Harvey
Project Manager II
7/12/2012 11:56 AM

Lisa Harvey
Project Manager II
lisa.harvey@testamericainc.com
07/12/2012

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ACCREDITED IN ACCORDANCE WITH nelac

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CASE NARRATIVE

Client: US EPA National Risk Mngmnt Research

Project: Pavillion Groundwater

Report Number: 680-78897-1

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

RECEIPT

The samples were received on 04/26/2012; the samples arrived in good condition, properly preserved and on ice. The temperature of the coolers at receipt was 1.9 C.

METHYLENE BLUE ACTIVE SUBSTANCES

Sample EPAMW01-0412-10 (680-78897-1) was analyzed for Methylene Blue Active Substances in accordance with EPA Method 425.1. The samples were analyzed on 04/26/2012.

No difficulties were encountered during the MBAS surfactants analysis.

All quality control parameters were within the acceptance limits.

SAMPLE SUMMARY

Client: US EPA National Risk Mngmnt Research

Job Number: 680-78897-1

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
680-78897-1	EPAMW01-0412-10	Ground Water	04/24/2012 1821	04/26/2012 0911

METHOD SUMMARY

Client: US EPA National Risk Mngmnt Research

Job Number: 680-78897-1

Description	Lab Location	Method	Preparation Method
Matrix: Ground Water			
Methylene Blue Active Substances (MBAS)	TAL SAV	EPA 425.1	

Lab References:

TAL SAV = TestAmerica Savannah

Method References:

EPA = US Environmental Protection Agency

METHOD / ANALYST SUMMARY

Client: US EPA National Risk Mngmnt Research

Job Number: 680-78897-1

Method	Analyst	Analyst ID
EPA 425.1	Brantley, Willie	WB

DATA REPORTING QUALIFIERS

Client: US EPA National Risk Mngmnt Research Job Number: 680-78897-1

Lab Section	Qualifier	Description
General Chemistry		
	U	Indicates the analyte was analyzed for but not detected.

Client: US EPA National Risk Mngmnt Research

Job Number: 680-78897-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
General Chemistry					
Analysis Batch:680-235520					
LCS 680-235520/4	Lab Control Sample	T	Water	425.1	
LCSD 680-235520/5	Lab Control Sample Duplicate	T	Water	425.1	
MB 680-235520/3	Method Blank	T	Water	425.1	
680-78897-1	EPAMW01-0412-10	T	Water	425.1	

Report Basis
T = Total

GENERAL CHEMI STRY

EPAPAV0074068

COVER PAGE
GENERAL CHEMISTRY

Lab Name: Test America Savannah Job Number: 680-78897-1

SDG No.:

Project: Pavillion Groundwater

Client Sample ID	Lab Sample ID
EPAMW01-0412-10	680-78897-1

Comments:

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: EPAMW01-0412-10 Lab Sample ID: 680-78897-1

Lab Name: TestAmerica Savannah Job No.: 680-78897-1

SDG ID.:

Matrix: Ground Water Date Sampled: 04/24/2012 18:21

Reporting Basis: WET Date Received: 04/26/2012 09:11

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
	Methylene Blue Active Substances	0.20	0.20	0.12	mg/l LAS MW 340	U		1	425.1

3-IN
METHOD BLANK
GENERAL CHEMISTRY

Lab Name: Test America Savannah Job No.: 680-78897-1

SDG No.:

Method	Lab Sample ID	Analyte	Result	Qual	Units	RL	Dil
Batch ID: 235520	Date: 04/26/2012 15:10						
425.1	MB 680-235520/3	Methylene Blue Active Substances	0.20	U	mg/l LAS MW 340	0.20	1

FORM III-IN

7A-IN
LAB CONTROL SAMPLE
GENERAL CHEMISTRY

Lab Name: Test America Savannah Job No.: 680-78897-1

SDG No.:

Matrix: Water

Method	Lab Sample ID	Analyte	Result	C	Unit	Spike Amount	Pct. Rec.	Limits	RPD	RPD Limit	Q
Batch ID: 235520	Date: 04/26/2012 15:10										
						LCS Source: MBAS SPIKE_00535					
425.1	LCS 680-235520/4	Methylene Blue Active Substances	0.457		mg/l LAS MW 340	0.500	91	70-130	8	15	

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA-IN

7A-IN
LAB CONTROL SAMPLE DUPLICATE
GENERAL CHEMISTRY

Lab Name: Test America Savannah Job No.: 680-78897-1

SDG No.:

Matrix: Water

Method	Lab Sample ID	Analyte	Result	C	Unit	Spike Amount	Pct. Rec.	Limits	RPD	RPD Limit	Q
Batch ID: 235520	Date: 04/26/2012 15:10										
						LCSD Source: MBAS SPIKE_00535					
425.1	LCSD 680-235520/5	Methylene Blue Active Substances	0.496		mg/l LAS MW 340	0.500	99	70-130	8	15	

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA-IN

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Test America Savannah Job Number: 680-78897-1

SDG Number:

Matrix: Water Instrument ID: NOEQUIP

Method: 425.1 MDL Date: 04/28/2010 09:47

Analyte	Wavelength/ Mass	RL (mg/L LAS	MDL (mg/L LAS MW
Methylene Blue Active Substances		0.2	0.12

FORM IX - IN

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: Test America Savannah Job Number: 680-78897-1

SDG Number:

Matrix: Water Instrument ID: NOEQUIP

Method: 425.1 XMDL Date: 06/02/2009 00:00

Analyte	Wavelength/ Mass	XRL (mg/l LAS	XMDL (mg/l LAS MW
Methylene Blue Active Substances		0.2	0.1

FORM IX - IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: Test America Savannah Job No.: 680-78897-1

SDG No.:

Instrument ID: NOEQUIP Method: 425.1

Start Date: 04/26/2012 15:10 End Date: 04/26/2012 15:10

Lab Sample ID	D/F	Type	Time	Analytes																				
				MBAS																				
CCV 680-235520/1			15:10																					
ZZZZZZ			15:10																					
MB 680-235520/3	1	T	15:10	X																				
LCS 680-235520/4	1	T	15:10	X																				
LCSD 680-235520/5	1	T	15:10	X																				
ZZZZZZ			15:10																					
ZZZZZZ			15:10																					
ZZZZZZ			15:10																					
ZZZZZZ			15:10																					
ZZZZZZ			15:10																					
ZZZZZZ			15:10																					
ZZZZZZ			15:10																					
CCV 680-235520/13			15:10																					
CCB 680-235520/14			15:10																					
ZZZZZZ			15:10																					
ZZZZZZ			15:10																					
680-78897-1	1	T	15:10	X																				
ZZZZZZ			15:10																					
CCV 680-235520/19			15:10																					
CCB 680-235520/20			15:10																					

Prep Types
T = Total / NA

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Test America Savannah Job No.: 680-78897-1

SDG No.:

Batch Number: 235520 Batch Start Date: 04/26/12 15:10 Batch Analyst: Brantley, Willie

Batch Method: 425.1 Batch End Date: 04/26/12 16:49

Lab Sample ID	Client Sample ID	Method Chain	Basis	Initial Amount	Final Amount	MBAS SPIKE 00535			
MB 680-235520/3		425.1		100 mL	100 mL				
LCS 680-235520/4		425.1		100 mL	100 mL	1 mL			
LCSD 680-235520/5		425.1		100 mL	100 mL	1 mL			
680-78897-A-1	EPAMW01-0412-10	425.1	T	100 mL	100 mL				

Batch Notes	
Batch Comment	5540
Chloroform Lot #	2549338
Date Analyzed	04.26.12
Sulfuric Acid Lot Number	26220924
Indicator Reagent ID Number	2621012
NaOH Lot #	2486440
Phenolphthalein Lot #	0166-16
Wash Solution Lot #	2628252

Basis	Basis Description
T	Total/NA

Shi ppi ng and Recei vi ng Documents

EPAPAV0074078

USEPA, ORD, NRMRL

Sample Analysis Request and Chain of Custody (COC) Record

Project: Pavillion Groundwater, Task #23993

Location: Pavillion, WY

Project Manager/Phone: Rick Wilkin / 580-436-8874

Lab Name: [redacted] Test America Savannah

Address: [redacted] 5102 LaRoche Ave. Savannah, GA 31404

Contact Name/Phone: [redacted] Bernard Kirkland / 912-354-7858

Shipping Method: Fed Ex

Shipping Date: 4/25/12

Shipping Tracking Number: 8006 5696 5610

Total Number of Shipping Containers: 1

Sample Number	Sample Matrix/Description	Date/Time Collected	Container Type (500 mL Plastic)	Preservation	Number of Containers	Requested Parameters: [redacted]	MBAS					Special Instructions
EPANW01-0412-10	Groundwater	4/24/12 6:21 P	[redacted]	None	[redacted]	[redacted]	1					[redacted]
												PR-ORD-12-01120
												680-78897
												1.9 °C

Relinquished By: Printed name: Rick Wilkin Signature: [signature] Affiliation: USEPA Date: 4/25/12 Time: 9:00 AM

Received By: Printed name: E. Blumett Signature: [signature] Affiliation: TA-SAV Date: 04/26/12 Time: 0911

Comments:

Relinquished By: Printed name: _____ Signature: _____ Affiliation: _____ Date: _____ Time: _____

Received By: Printed name: _____ Signature: _____ Affiliation: _____ Date: _____ Time: _____

Comments:

Pink copy - Field Custodian, Yellow copy - Lab Custodian, White copy - Project Manager

EPA-442 (CIN) (09/08)

EPAPAV0074079

Login Sample Receipt Checklist

Client: US EPA National Risk Mngmnt Research

Job Number: 680-78897-1

Login Number: 78897

List Source: TestAmerica Savannah

List Number: 1

Creator: Barnett, Eddie T

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	N/A	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	